

Out-of-School Innovation Project

Nature-based Curriculum for
Out-of-School Programs in Central Oregon

**CHILDREN'S
FOREST**



**CENTRAL
OREGON**

Out-of-School Innovation Project

Dear Educator,

As a leader or staff of an out-of-school program for youth in Central Oregon, the role that you play in children's lives is huge! The time that youth spend in your programs offers so many opportunities for youth development, learning, and health and wellness. The Children's Forest of Central Oregon and the Central Oregon STEM Hub have teamed up to support you and your programs to be able to provide more opportunities for outdoor learning and exploration and STEM for your participants. Often, with busy school days and family lives, outdoor time and STEM can be among the first things to go. Out-of-school programs, with the relaxed atmosphere, extended time frames, and supportive mentors, are the perfect venue to provide more of these experiences to youth.

Recognizing that time, resources, and training opportunities can be limited for out-of-school providers, The Children's Forest and the STEM Hub have worked on creating six kits and curriculum that have everything a program needs to implement the activities. The kits are free to check-out and include curriculum, materials, and coaching (if needed).

Children's Forest of Central Oregon:

Learn more and reserve these kits at www.childrensforestco.org/out-of-school

- Nature Arts - developed in partnership with the High Desert Museum
- Survival Skills - developed in partnership with Wildheart Nature School
- Habitat Investigations (coming in fall 2019) - developed in partnership with The Environmental Center

Central Oregon STEM Hub:

Learn more and reserve these kits at www.centraloregonstemhub.org

- Space Science
- STEM and Sports
- Under Pressure (coming in fall 2019) - developed in partnership with the Bend Science Station

The mission of the **Children's Forest of Central Oregon** is to unite our community to inspire lifelong connections to nature for all kids. We are a network of 20+ public, and non-profit organizations working to connect children and families to nature through learning, exploration, and play.

The Central Oregon STEM Hub is a partnership connecting regional pre K-12 education, higher education, industry, and community partners to catalyze opportunities and exploration in science, technology, engineering, and math (STEM).

Thank you to our project partners and funders!



Survival Skills

Created in partnership with
Wildheart Nature School

Overview

Learning about survival skills is a fun and exciting topic for kids. Thousands of children all over the world have been inspired by books like *Hatchet* and *My Side of the Mountain*, among others. While it is unlikely that kids will ever encounter a serious survival situation in their lives, learning these skills is both practical and fun. Tapping into their senses and powers of observation is a skill that kids can bring with them in any scenario, especially when they are in nature. Survival skills also teach kids about how to be resourceful, creative, and focused, and provide lots of opportunities to learn how to work as part of a team. Finally, since mental and emotional resilience are the most important aspect to any survival scenario, the activities in this kit emphasize these skills.

The activities are designed so that they can be done in any outdoor space, during any time of year. If your program has the opportunity to utilize a natural area near your site, this will enhance participants' experience with the activities. This kit references *Coyote's Guide to Connecting With Nature* (included in the kit), which provides a deep look into survival skills. While facilitators don't need to use this book, it can provide a lot of background information and additional activities. One of the themes of this book is using storytelling to introduce themes and encourage youth see about nature in new ways. We recognize that not everyone has personal stories to tell about their experiences in nature, but we encourage facilitators who are using this kit to think about how storytelling can be woven into these activities.

Activities

Foundations of Survival	pages 15-17
Tapping Into Your Inner Strengths	pages 18-19
Survival Scenarios - Part 1	pages 20-21
Survival Scenarios - Part 2	pages 22-23

Important Note:

The topic of survival skills might be sensitive for participants that are or have experienced homelessness or poverty. While there are many people who practice survival skills as a sport or hobby (survivalists) and voluntarily put themselves in situations where they need to meet their basic needs in the wilderness, this idea may be triggering, or even offensive to some who have involuntarily been in similar situations. This kit tries to highlight survival scenarios that could happen in real life, but there may be circumstances where you'll want to adapt activities or scenarios, or have further discussion about this topic, if appropriate.

Foundations of Survival

Survival Skills Activity 1

Getting Ready

Optional: Read pages 300-302 (Part A) and pages 454-456 (Part B) in *Coyote's Guide to Connecting with Nature*.

Doing the Activity:

Part A - Animal Senses

1. Ask students if they've ever had an experience in nature where they've seen wildlife. Ask participants what they were doing when they had this encounter. Were they tuned into their senses or moving quietly through the forest? If you have a story tell about an encounter that you've had, share the story with the group.
2. Explain that one of the most important skills to bring to any survival scenario is the ability to tune into your senses so that you are more aware of your surroundings. In this activity, they'll learn to expand their senses by learning from different animals.
3. Bring the group into a circle invite them to expand their senses by imitating the following sets of animals:
 - **Owl Eyes:** Ask the students if they can think of an animal that has excellent vision. After the students have identified owls, share that owl's big eyes are literally stuck in place, so they turn their heads all around when they want to focus. They spend most of their hunting time open eyed and gazing widely, waiting to notice the tiniest movement in the field that would be their food. Ask the students to imagine that they are owls perched on a tree and look straight ahead at a single point in front of them. Have students reach their hands straight out in front of their face and wiggle their fingers. Continuing to look forward and instructing them to soften their gaze, students should spread their arms apart horizontally, continuing to spread them until they can't see their fingers wiggling. Have students share their observations about how much more they can see when they try to incorporate a wider field of vision. Ask students to notice the details and small movements they see – all without moving their eyes.
 - **Deer Ears:** Have the students stand quietly and tune into their sense of hearing. Share that deer ears have huge muscles that can turn about like satellite dishes to focus on different sounds. Next, have the students try using "deer ears", cupping their hands around their ears, in the shape of deer ears. Practice listening taking their deer ears off and on. If there is moving water around or other groups talking, try facing them with the deer ears on and off. Ask the students to share their observations. Encourage students when they hear sounds in nature to practice using their deer ears to improve their sense of hearing.

Recommended Ages: 7+

Duration: 1 hour

Objectives:

- Participants will practice tuning into their senses to become more focused and aware of their surroundings
- Participants will begin learning the foundation of survival, by learning what humans need most to survive
- Participants will imagine a survival scenario and think about being resourceful with what they have

Notes about location/

time of year: Finding a quieter outdoor location is helpful for Part A.

Materials Needed:

- Bandana
- Duct tape
- Tupperware container
- Hair tie
- Shoe lace
- My Side of the Mountain excerpt (optional)

Survival Skills

Activity 1

Part A - Animal Senses (continued)

- **Raccoon Touch:** Raccoons don't have great vision or great hearing, but they have long and very sensitive fingers. Ask students to tune into their skin. Feel the clothes on their body, their feet touching the ground, the sun or wind on their skin, and their heart beating. Do they feel heavy? Light? Warm? Cold?
 - **Dog Nose:** Dogs have an incredible sense of smell that they are constantly using to learn about the world around them. Ask students to pay attention to their sense of smell. What do they smell? Try quick sniffs and long breaths. Smell nature around you by getting on all fours to smell the dirt or visiting nearby trees.
3. Encourage participants to continue using these skills throughout the lesson, and whenever they are exploring outdoors. If you have time and a natural area to explore, go on a walk practicing these skills.



EXTENSION: Head Honcho. This game challenges everyone to use their Owl Eyes. Create a circle and ask a volunteer to be the Tracker Detective. Send the Tracker Detective away so they can't see or hear the group. Next, the group picks the Head Honcho, whose job is to lead the movement of the rest of the group does. The Head Honcho begins a simple movement and everyone else follows. Invite the Tracker Detective back and have them stand in the middle of the circle. Their job is to try to figure out who the Head Honcho is. About every 20 seconds, the Head Honcho changes the movement of the group, trying not to be seen by the Tracker Detective. Everybody else copies their moves, trying not to give away who the Head Honcho is (using their Owl Eyes). The Tracker Detective has 3 guesses to figure out who the Head Honcho is. After each round, pick new people for each role.

Part B - Survival Priorities

1. Have students close their eyes and imagine a survival scenario. You can make up your own scenario, or read the sample provided from *Hatchet* by Gary Paulsen. In small groups, have students discuss the things they would do to survive, and in what order. Have a discussion with the larger group.
2. Introduce the Rule of 3s.
 - 3 minutes – Humans can only survive without air for 3 minutes
 - 3 hours – Humans can only survive for 3 hours without adequate warmth
 - 3 days – Humans can survive up to 3 days without water, but many people are relatively incapacitated after 1 day. This rule varies by region.
 - 3 weeks – The average person can go up to 3 weeks without food and still survive.
3. Revisit the list and priorities they made. What would their survival priorities be now, knowing the Rule of 3s? Give the small groups time to discuss and create a new plan. Debrief with the whole group.

Part C - Using What You've Got

1. Revisit the survival scenario from Part B. Bring out the bandana, duct tape, Tupperware container, hair tie, and shoe lace. Ask the participants to list as many possible survival uses for each one. Encourage participants to really think through the scenario and all the possible needs they'll encounter.
2. Have participants pair up and discuss which item they would most want to have in a survival scenario. Debrief with the whole group.

Sample Survival Scenario from *Hatchet* by Gary Paulsen

Brian, a thirteen-year-old from New York City, boards a small private plane headed to the Canadian north woods to visit his father. Brian recently found out that his parents are getting a divorce and is feeling sad, upset, and distracted. The pilot gives him a very brief flying lesson in which Brian has control of the plane for a few minutes. The pilot seems to be experiencing increasing pain in his shoulder, arm, and stomach. At first Brian does not think it is very serious, but as the pilot begins jerking in his seat it becomes clear that he is having a heart attack. The attack stops and the pilot is dead. Brian realizes that he is going to have to take over the controls and try and land the plane. He is able to communicate a little over the radio, but he doesn't know where he is, and soon the radio stops working. He decides to try and land on a lake, hoping that the plane will float and he can swim to shore. After a harrowing descent, the plane crashes into a lake in the Canadian woods, and Brian is barely able to swim to shore. He wakes up injured, sunburnt, and surrounded by swarms of mosquitos, and realizes that he is stranded, with nothing around but the forest. He empties his pockets and takes stock of everything he has — some coins, nail clippers, a twenty-dollar bill, and some scraps of paper. He also has a hatchet his mother gave him, still hanging from his belt. He is wearing tennis shoes, socks, jeans, underwear, a leather belt, T-shirt, a torn windbreaker, and a broken watch. He believes help is coming, but he can't be sure...

Tapping Into Your Inner Strengths

Survival Skills Activity 2

Getting Ready

Optional: Read pages 334-336 in *Coyote's Guide to Connecting with Nature*.

Doing the Activity:

Part A – Three Deep Breaths

1. Ask participants what one of the most important things to do in a survival situation is. Staying calm is critical so that people can make good decisions. While people often panic in survival situations, running and screaming is not helpful.
2. One technique to help stay calm is simple – take three deep breaths. Instruct participants to get into a comfortable position, close their eyes, and bring awareness to their body, mind, and emotions. Then guide them through three deep breaths, taking a moment to pause in the state of full inhalation. Ask the group to open their eyes and again bring awareness to their body, mind, and emotions. Dialogue with your participants about whether anything changed before and after the three deep breaths. Share that this practice is something they could do in any scenario when they are feeling worried, stressed, or panicked.
2. Lead a discussion about personality traits that are helpful in survival situations. Have students share ideas and add to their list:
 - Ability to keep calm and collected
 - Ability to improvise and adapt
 - Ability to make decisions
 - Ability to endure hardship
 - Ability to figure out the thoughts of others
 - Ability to hope for the best but prepare for the worst
 - Ability to maintain a sense of humor
3. Have students pair up and discuss any of these traits that they have. What experiences have helped to shape these traits?



Part B – Survival Signals

1. Ask participants what the goal of every survival situation is. Talk about how GETTING RESCUED is the goal, not living primitively in the wilderness. Signals are a great way to get people's attention when you need to in a survival situation.

Recommended Ages: 7+

Duration: 1 hour

Objectives:

- Participants will learn the importance of staying calm in a survival situation and techniques for calming the mind
- Participants will learn the importance of signaling in wilderness survival
- Participants will become more present, focused, and aware of their surroundings

Notes about location/

time of year: Finding a quieter outdoor location is helpful for Part A.

Materials Needed:

- Survival Reference Sheet
- Whistle
- Rocks
- Bandanas

Survival Skills

Activity 2

Part B – Survival Signals (continued)

2. Introduce the other Rule of 3s in survival. Rescue signals occurring in 3s signal that you need help. Demonstrate the following signaling techniques, using help from volunteers.

- Whistle: A whistle is much more effective than your voice to get someone's attention. Blow whistle three times 5 seconds apart until someone comes to rescue you. Note: We don't recommend actually blowing the whistle, as someone may come to your rescue!
- Fire: Build three fires in the shape of a triangle. The ideal location for a fire is at a high point in the landscape and in a clearing that is visible from above. If you have a lot of fuel, you can keep the fire lit, but if not, consider lighting it when you see something flying overhead. During the day, put green leafy vegetation on the top so that it produces a lot of smoke. At night, build the fire with large, visible flames.
- Visible Signs:
 - Create three big mounds out of rocks or other materials.
 - Use reflective materials, like metal (during the day) or lights (at night). Use 3 short flashes, 3 long flashes, then 3 short flashes.



3. Discuss what happens after a signal is successful and is seen by someone (usually an airplane). If an airplane flies overhead and rocks back and forth, dipping its wings consecutively, your message has been seen and is understood. At night, acknowledgment of a signal is accomplished by repetitive flashing of a green running light. If they have seen your signal but do not understand, they will fly a circle above you. In this event, you need to make every effort to clarify your situation. Holding your arms up in a Y pattern will indicate that yes, you do need help. Holding one arm up and one arm down, signifying an N shape, will indicate that no, you do not need assistance.

Part C – Mind's Eye Imaging (Talbot's Game)

1. Introduce the game. Ask everyone to close their eyes and ask a couple of questions to challenge their awareness. Some examples are:

- Who is sitting next to you on your right?
- What color shoes is ____ wearing?
- Where is the nearest tree? What kind of tree is it?
- Where is north?
- Are there any flowers blooming around us?

2. Once you have asked the questions, give everyone a moment to imagine in their Mind's Eye what they remember. After a few moments, invite everyone to call out what they remember, then they can open their eyes and see if they were right. It is helpful to build in some easier questions that help to build their confidence and work towards more difficult questions.

3. Repeat the game again, or incorporate it as you move onto other activities. This is a good game to use when the group is getting slack in their awareness.

EXTENSION: While the participants aren't looking, create a design on a bandana using natural materials that would be easy to replicate. Cover the design with another bandana and invite the group over. Uncover the design and give the group about 10 seconds to see your design, then put the bandana back on. Give each participant a bandana and about 5 minutes to recreate the design on their own. Visit each design to see who got it right. Adjust the difficulty of the game with the complexity of the design.

Survival Scenarios

- Part 1

Getting Ready

Optional: Read pages 394-396 in *Coyote's Guide to Connecting with Nature*.

Doing the Activity:

Part A – Fire in the Forest

1. Explain that the participants will get to play a game imagining themselves as animals in a survival situation. Paint the scene – “Do you hear that? It’s the sound of a crackling forest fire, coming straight towards us. There’s a fire in the forest and every animal is running away, trying to escape!”
2. Create the playing field in a large, open field. Mark a rectangle at least 30 yards long and as wide as you want. The wider the field, the easier the game is.
3. Have everyone line up across one end of the rectangle. Ask the group to pick three animals for the game that live in the forest around them. Pick one person to be the “fire” who is “it” in the middle of the field.
4. Have everyone (except the Fire) pick one of the three animals in their mind (they don’t need to share this out loud). This is what they will be through the entire game.
5. The player who is the Fire calls out one of the animals. When the players hear their animal name, they have to run to the other side of the field without getting tagged by the Fire. If you get tagged, you become a Tree on fire, and you are able to tag people running through, but you can’t move your feet (because you’re a tree).
6. The Fire repeats step 5 a few times. If they call out “Fire in the Forest”, then all the animals have to run to the other end without getting tagged by the Fire or the Trees. The last player in the game has the chance to be the Fire the next round.
7. Every time you start a new game, have the group pick three new animals who live in Central Oregon.



Survival Skills

Activity 3

Recommended Ages: 7+

Duration: 1 hour

Objectives:

- Participants will become more cohesive as a group and get some exercise
- Participants will imagine themselves as animals in a survival situation
- Participants will imagine themselves in a real survival situation and practice their problem solving skills

Notes about location/

time of year: Part A requires a large open field

Materials Needed:

- Cones
- Laminated Survival Scenarios (pages X-X)

Survival Skills

Activity 3

Part B – Survival Skits

1. Explain that now everyone is going to get the chance to put their knowledge to use by practicing survival scenarios.
2. Break the group into 2-3 smaller groups and give each group a different survival scenario (provided). It can be helpful to have an instructor in each group. The groups will have 10-15 minutes to come up with 2 skits – a smart way to deal with the situation, and a not-so-smart way to deal with the situation.
3. Perform the skits with the full group. Expect a lot of laughter when the skits are shared!



Survival Scenarios

- Part 2

Survival Skills Activity 4

Doing the Activity:

Part A – Survival Skits

1. This activity is repeated from Lesson 3 to provide everyone more practice to put their knowledge to use. Use the scenarios provided that were not used in Lesson 3.
2. Break the group into 2-3 smaller groups and give each group a different survival scenario (provided). It can be helpful to have an instructor in each group. The groups will have 10-15 minutes to come up with 2 skits – a smart way to deal with the situation, and a not-so-smart way to deal with the situation.
3. Perform the skits with the full group. Expect a lot of laughter when the skits are shared!

Part B – Survival Bag

1. Ask the students which activity is most likely to lead to a dangerous survival situation – day hiking, camping, or backpacking? The answer may be surprising – it's day hiking! Ask students why this might be. When people go on day hikes, they rarely bring extra gear because they only anticipate being gone for the day. Ask participants to brainstorm things that could go wrong on a day hike that would create a survival scenario. Having a handy survival bag can help you be prepared in any situation.
2. Break out the Survival Bag. Take each item out and brainstorm with the group how it could be helpful in a survival scenario.
3. Revisit different survival scenarios and talk through whether or not the survival kit would provide you enough gear to survive. Ask participants if there any other items you'd like to have on an outdoor adventure.

Part C - Mini-Shelters (Optional)

1. If you have access to natural materials in your outdoor space, a fun activity to try to is to have participants build mini-shelters. The guidelines are simple – create a shelter for a small animal (like an ant, frog, or squirrel) using natural materials that are down.
2. Go on a tour of everyone's shelter and have them share a little about their thought process in creating the design.
2. Optional: Test out the shelters in a "rain storm" by pouring water over them and seeing if your hand stays dry inside.

Recommended Ages: 7+

Duration: 1 hour

Objectives:

- Participants will imagine themselves in a real survival situation and practice their problem solving skills
- Participants will learn basic items they should always carry with them
- Participants will learn the importance of carrying these things, even on day hikes

**Notes about location/
time of year:** N/A

Materials Needed:

- Laminated Survival Scenarios (pages X-X)
- Survival Bag

Survival Scenarios

You have gone backpacking with a group of people and you are three days into the wilderness. Your trek is ten days long. The member of your group who had been carrying the food bag accidentally left it open during the night and a bear raided all your valuable nourishment.

You are out on a day hike with a group of friends and decide to venture off trail. After about a half hour of walking you realize you are lost. It is night fall and temperatures are expected to dip to 25 degrees. Because it was a day hike, you only have a half a liter of water each, no food, and no warm clothing. It is a new moon and the woods will be very dark soon. Your phones do not have reception in the area.

You and your friends went on a cross country skiing trip and are on your way back driving through forest service roads. It is snowing and about 10 degrees outside. Suddenly, the car breaks down. It is almost 10pm and you have not seen any other cars driving by since leaving the cross country skiing area. You estimate that you are about 30 miles from the nearest gas station. On your drive up the road earlier that day you passed two other cars so you know that cars do occasionally drive up the road. The car's heat is not working. You have plenty of food and water.

You are out backpacking in the mountains with a group of people and you are two days into your adventure. As you are traversing a narrow path next to a cliff, one of your group members says she needs to take off her backpack and re-adjust it. As she is doing this, she loses balance and although she is able to stay on the cliff, her backpack falls at least 700 feet down to where you can no longer see it. There is no safe passage into the area that it has fallen. She was the one carrying the iodine to purify the water as well as the stove which could boil water. You have no other gear specifically designed for purifying water but you do have a lighter and a metal camping cup.

You are on a day hike with a group of friends on Mt. Hood and all of the sudden there is an avalanche! Luckily, you are not harmed by the avalanche but it traps you on all sides with snow walls and rock walls that would not be safe to climb. You are in an area with trees and you have matches with you.

You are hiking through the forest with a group of friends when you start to smell smoke. Soon you realize that the forest about 100 feet away from you is ablaze with fire. You are about a 10-minute walk from your car and you do not have reception on your cell phone.